



# Chapter V





# Air Force Research Laboratory Autonomy Science & Technology Strategy



***Integrity ★ Service ★ Excellence***

**Dr Jim Overholt**

AFRL Senior Scientist for Autonomous Systems

**Kris Kearns**

AFRL Portfolio Lead for Autonomy Research  
Human Effectiveness Directorate  
Air Force Research Laboratory

**With the support from many  
AFRL Scientists and Researchers**

**Can be contacted through:**  
[AF-autonomy@defenseinnovationmarketplace.mil](mailto:AF-autonomy@defenseinnovationmarketplace.mil)





# AFRL Autonomy Vision & Goals



*Ensure operations in complex, contested environment*



*Demonstrate highly effective human-machine teaming*

**Intelligent machines seamlessly integrated with humans - maximizing mission performance in complex and contested environments**

*Create actively coordinated teams of multiple machines*



*Ensure safe and effective systems in unanticipated & dynamic environments*

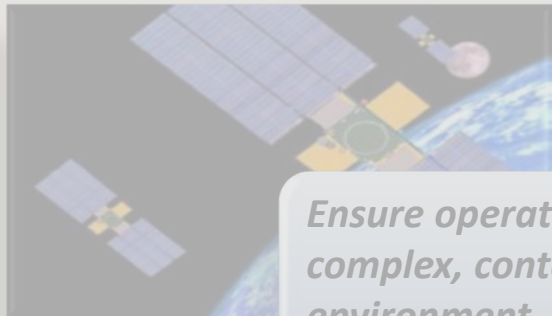




# AFRL Autonomy



## Test & Evaluation, Verification & Validation



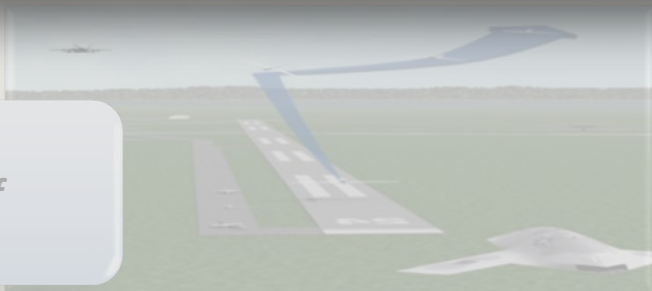
*Ensure operations in complex, contested environment*



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***Ensure safe and effective systems in unanticipated & dynamic environments***



### **ENDURING PROBLEMS**

- Provide assurance for machine intelligence and decision-making in complex, uncertain, and dynamic environments
- Develop methods to ensure reliability of human-machine communication and interaction
- Develop rigorous and verifiable architecture systems for data centric autonomous systems
- Develop methodology to V&V fractionated and composable systems

*Ensure safe and effective systems in unanticipated & dynamic environments*

